

(Below) Nose of the F.W.61. The propeller is merely a cooling fan. The three-wheeled undercarriage should be noted. On the right is seen an early "tethered" flight.



ever, calculations and wind tunnel tests went on side by side, and finally the actual full-scale tests could be begun. Beforehand, however, a scale model was flown, fitted with a 0.7 h.p. petrol engine. This model is shown in one of our illustrations. Professor Focke dryly states in his article that "it goes without saying that the model was in bits more often than it was whole," but it provided valuable data, and by November, 1934, it had reached the height of 18 m. which was the altitude record of full-size helicopters at that time.

With the rotor characteristics determined there were still a number of mechanical problems to be tackled, and the guiding principle was established that the transmission, rotor heads, incidence control, and so forth should be treated exactly as a new aero engine in course of development. The Brandenburgischen Motorenwerke were given the task of developing the transmission and modifying the Siemens Sh 14a engine. First a single outrigger and rotor were built and tested in the manner shown in one of the photographs. Power in that case was supplied by an electric motor, so that both lift and power required could



An historical moment: The F.W.61 makes its first free flight, piloted by Ing. Rohlfs, on June 26, 1936. The fuselage had not yet been covered. Lateral and fore-and-aft control is by tilting the rotor heads.